

Appl. No. : 10/563,621
Filed : April 17, 2006

AMENDMENTS TO THE CLAIMS

Please amend Claims 1 and 12 as follows. Insertions are shown underlined while deletions are ~~struck-through~~ or [[double bracketed]]. Please add Claim 24 and 25.

1 (currently amended): Newsprint for offset printing, characterized in that said newsprint for offset printing is obtained by a process in which base paper for newsprint is coated with a surface treating agent mainly comprised of the following component (A) and component (B), dried and subjected to a calender treatment:

component (A): at least one water-soluble macromolecular substance selected from the group consisting of starches, polyvinyl alcohols, polyacrylamides, and cellulose derivatives;

component (B): a water-soluble surface sizing agent that is a copolymer obtained by the copolymerization of the following component (a) and component (b); a copolymer obtained by the copolymerization of component (a), component (b) and component (c); or a copolymer obtained by quaternizing, by component (d), any of the foregoing copolymers in which component (b) is a vinyl monomer containing a tertiary amine group;

component (a): styrene monomer which is at least one styrene monomer selected from the group consisting of styrene, α -methyl styrene, chlorostyrene and cyanostyrene,

component (b): cationic monomer which is a vinyl monomer containing any one of primary amino group, secondary amino group, and tertiary amino group,

component (c): other hydrophobic monomers which is at least one hydrophobic monomer which is copolymerizable and selected from the group consisting of methacrylic acid esters and acrylic acid esters,

component (d): quaternizing agents which is at least one quaternizing agent selected from the group consisting of epichlorohydrin, methyl chloride, ethyl chloride, benzyl chloride, dimethyl sulfate, diethyl sulfate, oxides, epoxy compounds, and organic halogen compounds,

wherein the cationization degree of the water-soluble surface sizing agent is 1.3-3.0 1.4-2.0 meq/g,

the average particle size of the water-soluble surface sizing agent is 40 nm or smaller, aluminum sulfate (a 50% by weight $\text{Al}_2\text{O}_3 \cdot 14\text{H}_2\text{O}$ product) is added to the papermaking pulp at a ratio of less than 3.0% by weight relative to oven-dried pulp when manufacturing the base paper for newsprint, and

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a ratio by solid weight of the styrene monomer of component (a) to the cationic monomer of component (b) is in the range from 80:20 to 20:80.

2-11 (canceled)

12 (currently amended): A newsprint for offset printing comprising:

a base paper for newsprint; and

a coating of a surface treating agent with which the base paper is coated, said surface treating agent being comprised of components (A) and (B) as a main constituent and dried,

wherein component (A) is at least one water-soluble macromolecular substance selected from the group consisting of starches, polyvinyl alcohols, polyacrylamides, and cellulose derivatives;

component (B) is a water-soluble surface sizing agent selected from the group consisting of a copolymer obtained by copolymerization of components (a) and (b); a copolymer obtained by copolymerization of components (a), (b), and (c); or a copolymer obtained by quaternizing, by component (d), any of the foregoing copolymers in which component (b) is a vinyl monomer containing a tertiary amine group;

component (a) is a styrene monomer which is at least one styrene monomer selected from the group consisting of styrene, α -methyl styrene, chlorostyrene and cyanostyrene;

component (b) is a cationic monomer which is a vinyl monomer containing any one of primary amino group, secondary amino group, or tertiary amino group,

component (c) is at least one hydrophobic monomer, other than components (a) or (b), which is copolymerizable and selected from the group consisting of methacrylic acid esters and acrylic acid esters, and

component (d) is at least one quaternizing agent selected from the group consisting of epichlorohydrin, methyl chloride, ethyl chloride, benzyl chloride, dimethyl sulfate, diethyl sulfate, oxides, epoxy compounds, and organic halogen compounds,

wherein the water-soluble surface sizing agent has a cationization degree of 1.3-3.0 1.4-2.0 meq/g,

the water-soluble surface sizing agent has an average particle size of 40 nm or smaller,

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the base paper contains aluminum sulfate added thereto at a ratio of less than 3.0% by weight relative to oven-dried pulp of the base paper, and

a ratio by solid weight of the styrene monomer of component (a) to the cationic monomer of component (b) is in the range from 80:20 to 20:80.

13-15 (canceled)

16 (previously presented): The newsprint for offset printing according to claim 12, wherein the aluminum sulfate is a 50% by weight $\text{Al}_2\text{O}_3 \cdot 14\text{H}_2\text{O}$ product.

17 (previously presented): The newsprint for offset printing according to claim 12, wherein the base paper is a neutral papermaking processed paper.

18 (previously presented): The newsprint for offset printing according to claim 12, wherein the base paper is coated with the coating at 0.05-2.0 g/m² on both sides.

19 (canceled)

20 (previously presented): The newsprint for offset printing according to claim 12, wherein component (c) is added at no more than 30 parts relative to 100 parts of component (a) and component (b).

21 (previously presented): The newsprint for offset printing according to claim 12, wherein a ratio of components (B) to (A) is 1/100 to 50/100 by weight before being dried.

22 (previously presented): The newsprint for offset printing according to claim 1, wherein the base paper has a basis weight of 33-45 g/m².

23 (previously presented): The newsprint for offset printing according to claim 12, wherein the base paper has a basis weight of 33-45 g/m².

24 (new): The newsprint for offset printing according to claim 1, wherein the ratio by solid weight of the styrene monomer of component (a) to the cationic monomer of component (b) is in the range from 80:20 to 50:50.

25 (new): The newsprint for offset printing according to claim 12, wherein the ratio by solid weight of the styrene monomer of component (a) to the cationic monomer of component (b) is in the range from 80:20 to 50:50.